

**REMARKS/ARGUMENTS**

This Preliminary Amendment is filed concurrently with a Request for Continued Examination (RCE) in response to the final Office Action of May 5, 2008.

Claims 1–12 are pending in the application. The Office Action rejected Claims 1–4 and 10 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,905,465 to Jones et al. (“Jones ’465”). The Office Action also rejected Claims 1–6 and 10 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,048,278 to Jones et al. (“Jones ’278”). Furthermore, the Office Action rejected Claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Jones ’278 in view of U.S. Patent No. 5,463,815 to Fogle and rejected Claims 8–9 under 35 U.S.C. § 103(a) as being unpatentable over Jones ’278 in view of U.S. Patent No. 4,756,146 to Rouse. In addition, Claims 11–12 were withdrawn by the Examiner.

In view of the Amendments and Remarks set forth herein, Applicants respectfully submits that the application is in condition for allowance.

**Restriction Requirement**

The Examiner has required restriction between Group I, namely Claims 1–10, and Group II, namely Claims 11–12. The Office Action indicates that Claims 1–10 are constructively elected by original presentation for prosecution on the merits, and as a result Claims 11–12 were withdrawn by the Examiner as directed to a non-elected invention.

Applicant respectfully submits that the restriction requirement with regard to Claims 1–12 is improper and requests that the restriction presented be withdrawn. Each of these claims is drawn to embodiments of a cutting head for a brush cutter or edge trimmer including a plurality of string outlets for a plurality of cutting strings, wherein the string outlets are distributed in a plurality of mutually spaced planes. Independent Claim 1 (prior to the amendment presented in this Response) recited, *inter alia*, that the axes of the cutting string outlets are distributed in at least two planes (Pac, Pcb) mutually spaced by a distance (H2) greater than or equal to approximately 1.8 times the height (H1) of each string. Independent Claim 11 recited, *inter alia*, that the mutually closest two said planes are mutually spaced from each other by a distance (H2) that is greater than or equal to approximately 1.8 times the height (H1) of each string.

The Examiner asserts that the restriction requirement is proper because Group I and Group II are related as subcombinations disclosed as usable together in a single combination. Office Action, pages 2–3. MPEP § 806.05(d), however, which is cited by the Examiner, applies only to situations where “applicant separately claims plural subcombinations usable together in a single combination and claims a combination that requires the particulars of at least one of said subcombinations.” In the case of the present application (prior to the amendments presented herein), independent Claim 11 recites a cutting head having similar characteristics to the cutting head of independent Claim 1, but also includes more specific recitations regarding the spacing between planes. In other words, this is not a situation where two subcombinations and a combination are claimed, as asserted by the Examiner. Therefore, MPEP § 806.05(d) does not apply, and the restriction requirement is improper.

Notwithstanding the impropriety of the restriction requirement, Applicant hereby cancels Claims 11–12. By canceling Claims 11–12, Applicant in no way admits or agrees to any corresponding requirement for restriction; rather, the identified claims are being canceled for the purpose of expediting prosecution of this application. Furthermore, Applicant submits that amended Claim 1, which has recitations similar to those of canceled Claim 11, is thus properly presented for further examination.

#### **Objection to the Drawings and Specification**

The Examiner objected to the drawings under 37 CFR § 1.83(a) as not showing every feature of the invention specified in the claims. Specifically, the Examiner asserts that the motor set forth in Claim 10 must be shown in the figures. Applicant addressed this objection in the Response dated March 3, 2008, which was filed in response to the Office Action dated December 3, 2008. In the Response dated March 3, 2008, FIG. 4 was amended to include a representation of the motor. In the present Office Action, the Examiner further objects to the amended FIG. 4 as introducing new matter by showing the motor.

Although Applicant disagrees with these objections and does not believe the inclusion of the motor in FIG. 4 represents new matter, the representation of the motor has been removed from FIG. 4. Furthermore, in order to expedite examination of the present application, Claim 10,

which recites a cutting device comprising a motor, is canceled. Therefore, the Objections to the Drawings and Specification have been addressed or are otherwise moot.

**Independent Claim 1**

Independent Claim 1 relates to a cutting head comprising a plurality of string outlets for a plurality of cutting strings, wherein the axes of the cutting string outlets are distributed in a plurality of mutually spaced planes. To clarify and further patentably distinguish the invention, Claim 1 has been amended to recite that adjacent planes are spaced from each other by a distance (H2) that is greater than or equal to approximately 1.8 times the height (H1) of each string.

The spacing of adjacent planes by a distance (H2) that is greater than or equal to approximately 1.8 times the height (H1) of each string has been found by the inventor to improve the chopping of plants. This is an unexpected result and would not be obvious to one of ordinary skill in the art. Rather, one skilled in the art would expect that increasing the distance between two adjacent cutting planes would decrease the cutting effect, similar to the result one obtains when two blades of a pair of scissors are spaced apart from each other.

Claims 2–9 depend from independent Claim 1 and thus incorporate all of the elements of Claim 1.

**Rejection of Claims 1–4 and 10 under 35 U.S.C. § 102(b)**

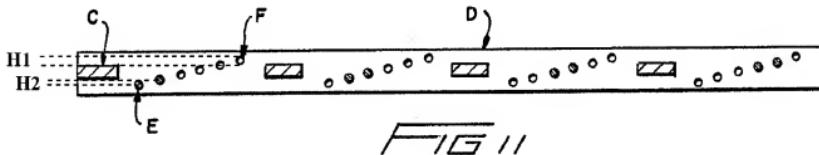
The Office Action rejected Claims 1–4 and 10 under 35 U.S.C. § 102(b) as being anticipated by Jones '465. As mentioned above, Claim 10 is canceled, and so the rejection of Claim 10 is moot. Regarding Claims 1–4, Applicant respectfully submits that the rejection of Claims 1–4 is traversed for the reasons given below.

As described above, independent Claim 1, as amended, is directed to a cutting head wherein “the axes of the cutting string outlets are distributed in a plurality of mutually spaced planes” and “adjacent planes are spaced from each other by a distance (H2) that is greater than or equal to approximately 1.8 times the height (H1) of each string.”

In contrast, Jones '465 discloses a rotary cutting member that includes groups of holes F disposed circumferentially along a rim D for receiving flexible cutting filament E, as shown in

FIG. 1. Jones '465, col. 3, lines 63–65; col. 4, lines 63–66. The holes F are disposed in an ascending, stepped configuration between the lower edge 26 and the upper edge 24 of rim D. Col. 3, lines 66–68. A first portion 28 of the cutting filament E is inserted into a hole F and a second portion 30 is inserted into an adjacent hole F such that the first portion 28 and the second portion 30 extend outwardly from the rim D, and the first portion 28 is lower than the second portion 30. Col. 4, lines 63–68; col. 5, lines 1–2.

Jones '465 does not disclose adjacent planes that are spaced from each other by a distance that is greater than or equal to approximately 1.8 times the height of each string. The specification of Jones '465 is silent regarding the particular spacing of the planes. Furthermore, not one of the various configurations illustrated in FIGS. 11–18 of Jones '465 shows a spacing of adjacent planes that approaches 1.8 times the height of each string. At best, the planes defined by the holes F and H shown in the figures are spaced by only 0.5 times the height of the filament E. FIG. 11 of Jones '465, which is representative of FIGS. 11–18, is reproduced below for the Examiner's reference, with adjacent planes and distances corresponding to H1 and H2 superimposed.



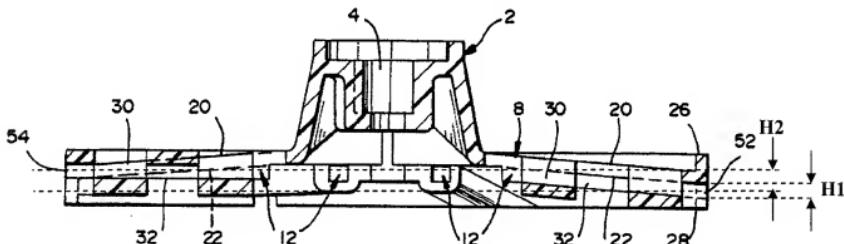
Therefore, Jones '465 does not disclose every element recited by independent Claim 1, and, in particular, Jones '465 does not disclose adjacent planes that are spaced from each other by a distance that is greater than or equal to approximately 1.8 times the height of each string. Claim 1 is thus not anticipated by Jones '465. Claims 2–4 depend from independent Claim 1. Therefore, for at least the reasons described above, the rejection of Claims 1–4 is respectfully traversed.

**Rejection of Claims 1–6 and 10 under 35 U.S.C. § 103(a)**

The Office Action also rejected Claims 1–6 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Jones '278. As previously described, Claim 10 is canceled, and so the rejection of Claim 10 is moot. Regarding Claims 1–6, Applicant respectfully submits that the rejection of Claims 1–6 is traversed for the reasons given below.

Jones '278 discloses a rotary cutting blade **R** that includes a rim 6 connected to a hub 2. Jones '278, col. 2, lines 61–68; FIG. 1. The rim 6 includes openings 52, 54 through which cutting filaments 10 are disposed. Col. 3, lines 48–67. The opening 52 is disposed at a higher elevation than the opening 54 "for allowing the cutting filament to be disposed at two different elevations." Col. 3, lines 67–68; col. 4, line 1.

Similar to Jones '465, Jones '278 is silent regarding the spacing of the planes of the openings 52, 54. Referring to FIG. 4 of Jones '278, reproduced below with adjacent planes and distances corresponding to H1 and H2 superimposed, the distance between the planes of the openings 52, 54 are, at best, about equal to the height of a cutting filament 10. Thus, Jones '278 does not teach or suggest adjacent planes that are spaced from each other by a distance that is greater than or equal to approximately 1.8 times the height of each string.



***FIG. 4***

The Examiner asserts that "the distance between the planes could be 1.8 times or greater than the thickness of a string which has a lesser height or greater height"; however, the Examiner

does not provide a reason for performing the modification. Office Action, pages 7–8. The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1731 (2007), stated that:

Often, it will be necessary ... to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

*See id.* at 1396 (emphasis added).

The “reason” provided in the Office Action is a conclusory statement that “it would have been obvious to one having ordinary skill in the art at the time the invention was made to select the distance between the two planes or the height of the string in a manner that the distance between the two planes is 1.8 times or greater than the height of the string . . . .” Such a statement amounts to an impermissible “hindsight reconstruction” as there is no teaching or suggestion in Jones '278 that such a feature would be advantageous. *See Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966) (stating the importance of guarding against “slipping into hindsight and...resisting [the] temptation to read into the prior art the teachings of the invention in issue”). In other words, it would not be obvious to increase the spacing of the planes in Jones '278 without having access to the instant application.

Even if there were a legitimate reason for modifying Jones '278, the modification would still be improper because it renders the invention of Jones '278 inoperable. This is because Jones '278 teaches the use of a cutting filament 10 that is substantially the height of the passageway 12, leg portions 16, 17, and openings 52, 54. (“The cutting filament 10 is similarly shaped so that the filament 10 fits within the passageway 12 in a specific orientation.” Col. 4, lines 12–14.) Jones '278 specifically states that “[t]he cutting filament 10 is slid into the passageway 12 until a first intermediate portion 62 is secured in the leg portion 17 and a second intermediate portion 64 is secured in the leg portion 16 . . . . It will be noted that a substantial portion of the cutting filament 10 is secured in the passageway 12, which further helps, in addition to the locking structure 34, in keeping the cutting filament 10 secured to the cutting blade R.” Col. 4, lines 27–39.

In fact, Jones '278 teaches openings **30** and **32** in the top and bottom of the passageway **12** (shown in FIG. 3 of Jones '278) for minimizing sliding friction when installing the cutting filament **10**. Such openings **30**, **32** would not be necessary if the cutting filament were not substantially the height of the passageway **12** and openings **52**, **54** (e.g., if no friction were produced upon insertion of the filament). Furthermore, if the cutting filament were smaller than the height of the passageway **12** and openings **52**, **54**, the filament would not be properly received and secured within the passageway **12** during operation of the cutting blade **R**.

Thus, Jones '278 does not teach or suggest adjacent planes that are spaced from each other by a distance that is greater than or equal to approximately 1.8 times the height of each string, as recited in Claim 1. Claims 2–6 depend from independent Claim 1. Therefore, for at least the reasons described above, the rejection of Claims 1–4 is respectfully traversed.

**Rejection of Claim 7 under 35 U.S.C. § 103(a)**

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Jones '278 in view of Fogle. Fogle does not cure the deficiencies of Jones '278. Claim 7 depends from independent Claim 1. Therefore, for at least the reasons described above, the rejection of Claim 7 is respectfully traversed.

**Rejection of Claims 8–9 under 35 U.S.C. § 103(a)**

Claims 8–9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jones '278 in view of Rouse. Rouse does not cure the deficiencies of Jones '278. Claims 8–9 depend from independent Claim 1. Therefore, for at least the reasons described above, the rejection of Claims 8–9 is respectfully traversed.

Application No.: 10/543,028  
Amendment Dated September 5, 2008  
Response to Office Action of May 5, 2008

## CONCLUSION

In view of the remarks presented above, it is respectfully submitted that independent Claim 1 and all the claims depending therefrom (*i.e.*, Claims 2–9) are in condition for allowance. It is respectfully requested that a Notice of Allowance be issued in due course. The Examiner is requested to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present application.

The patentability of the independent claims has been argued as set forth above, and thus Applicant will not take this opportunity to argue the merits of the rejection with regard to specific dependent claims. However, Applicant does not concede that the dependent claims are not independently patentable and reserves the right to argue the patentability of dependent claims at a later date if necessary.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefor (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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LEGAL02/52032085v1

**ELECTRONICALLY FILED USING THE EFS-WEB ELECTRONIC FILING SYSTEM OF THE UNITED STATES PATENT & TRADEMARK OFFICE ON SEPTEMBER 5, 2008.**